Comparisons of Job Characteristics

Focus Occupation: Mechanical Drafters (17-3013)
Associated Occupation: Mechanical Engineers (17-2141)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge — Similarity of Focus Occupation to Associated Occupation: 95

Focus Occupation: Mechanical Drafters (17-3013)
Associated Occupation: Mechanical Engineers (17-2141)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	21.5	17.6	<<	Extensive education and/or training may be required
Design	5.2	21.0	22.0	0	Current knowledge level may be sufficient
Mathematics	9.2	18.1	13.0	<<	Extensive education and/or training may be required
Mechanical	6.8	18.1	12.4	<<	Extensive education and/or training may be required
Physics	4.3	15.3	8.3	<<	Extensive education and/or training may be required
Production and Processing	6.0	14.2	9.1	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills — Similarity of Focus Occupation to Associated Occupation: 75

Focus Occupation: Mechanical Drafters (17-3013)
Associated Occupation: Mechanical Engineers (17-2141)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	6.2	15.3	10.6	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	14.8	9.2	<<	Extensive development of skills in this area may be required
Judgment and Decision Making	9.4	14.1	8.6	<<	Extensive development of skills in this area may be required
Science	4.5	13.6	3.9	<<	Extensive development of skills in this area may be required

Operations Analysis	5.0	13.0	8.6	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	12.0	7.3	<<	Extensive development of skills in this area may be required
Technology Design	2.6	11.0	6.0	<<	Extensive development of skills in this area may be required
Programming	2.2	7.5	5.8	<	A higher skill level may be required
Installation	1.7	6.3	1.0	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities	**Similarity of Focus Occupation to Associated Occupation: 94**

Focus Occupation: Mechanical Drafters (17-3013)
Associated Occupation: Mechanical Engineers (17-2141)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Deductive Reasoning	10.6	15.8	10.7	<<	Extensive improvement in abilities may be required
Written Comprehension	11.0	15.8	10.8	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	15.7	11.1	<<	Extensive improvement in abilities may be required
Information Ordering	9.9	15.4	10.6	<<	Extensive improvement in abilities may be required
Near Vision	11.1	13.3	12.7	0	Current ability level may be sufficient
Number Facility	6.3	13.0	9.3	<<	Extensive improvement in abilities may be required
Category Flexibility	9.0	12.7	9.7	<<	Extensive improvement in abilities may be required
Visualization	7.5	12.7	11.7	0	Current ability level may be sufficient
Selective Attention	8.7	11.0	8.8	<	Some improvement in abilities may be required
Perceptual Speed	7.4	10.6	8.6	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common	**Similarity of Focus Occupation to Associated Occupation: 92**

Focus Occupation: Mechanical Drafters (17-3013)
Associated Occupation: Mechanical Engineers (17-2141)

Work Activities	Exclusivity of Activity
Analyze technical data, designs, or preliminary specifications	47
Analyze test data	64

Collect scientific or technical data	30
Communicate technical information	4
Confer with engineering, technical or manufacturing personnel	25
Create mathematical or statistical diagrams or charts	43
Direct and coordinate activities of workers or staff	3
Draw prototypes, plans, or maps to scale	57
Evaluate engineering data	60
Examine engineering documents for completeness or accuracy	62
Follow manufacturing methods or techniques	73
Prepare technical reports or related documentation	22
Read blueprints	10
Read schematics	34
Read technical drawings	7
Understand engineering data or reports	48
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58
Use drafting or mechanical drawing techniques	50
Use government regulations	44
Use spreadsheet software	18
Work as a team member	36

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common	Similarity of Focus Occupation to Associated Occupation: 65

Focus Occupation: Mechanical Drafters (17-3013)
Associated Occupation: Mechanical Engineers (17-2141)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Industry specific software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.